

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-35 (canceled)

36. (new) A method for navigating in real time in a three dimensional medical image model, the method comprising:
displaying an orientation view of the medical image model on a display;
adjusting a location on the displayed orientation view of the medical image model based on detected movement of a pointing device in relation to a worksurface for selecting a navigation point;
rotating the displayed orientation view on the display as the location on the orientation view is adjusted based on the detected movement of the pointing device in relation to the worksurface;
locking the current location on the orientation view as the navigation point based on detected control command from the pointing device;
displaying an inside view related to the navigation point into the medical image model when the navigation point is locked; and

adjusting viewing direction to the inside view of the medical image model based on detected changes in orientation of the pointing device in relation to the worksurface.

37. (new) The method of claim 36, wherein the orientation view is a surface view of the medical image model.

38. (new) The method of claim 36, wherein the pointing device is a pen, a stylus or a pen-like instrument and the worksurface is a tablet surface.

39. (new) The method of claim 38, wherein the detected changes in orientation used in adjusting the viewing direction to the inside view of the medical image model comprise the detected change of a tilt angle and change of orientation between the pen and the tablet surface.

40. (new) The method of claim 38, the method further comprising detecting the movement of the pointing device in relation to the worksurface on the basis of changes of the pen tip position on the tablet surface.

41. (new) The method of claim 38, the method further comprising detecting the movement of the pointing device in relation to the worksurface on the basis of changes of the pen tilt angle in relation to the tablet surface.

42. (new) The method of claim 38, the method further comprising proceeding the inside view of the medical image model deeper into the medical image model depending on the pressure between the pen and the tablet surface.

43. (new) The method of claim 36, wherein the pointing device comprises an adjusting device and the method further comprising adjusting different parameters of the medical image model by the adjustment device.

44. (new) The method of claim 43, the method further comprising adjusting the parameters independently of the orientation of the pointing device by the adjustment device.

45. (new) The method of claim 43, wherein the parameters that are adjusted by the adjustment device are used for proceeding the inside view deeper into the medical image model or for adjusting transparency, contrast and/or threshold of the medical image model.

46. (new) The method of claim 36, wherein the inside view of the medical image model comprises one or more medical image slices or other reconstructions and the adjusting of the viewing direction to the inside view of the medical image model comprises rendering of the medical image slices with respect to the navigation point related to the orientation view of the medical image model.

47. (new) The method of claim 46, the method further comprising generating said one or more medical image slices from two-dimensional image data.

48. (new) The method of claim 46, the method further comprising orienting the rendered medical image slices or

other reconstructions in relation to the detected orientation of the pointing device in relation to the worksurface.

49. (new) The method of claim 46, wherein the rendered medical image slices are three orthogonal planes, one of the planes being perpendicular with the axis oriented in relation to the detected orientation of the pointing device.

50. (new) The method of claim 36, wherein adjusting the location on the displayed orientation view of the medical image model comprises synchronously rotating a viewpoint to the orientation view of the medical image model on the display.

51. (new) The method of claim 36, the method further comprising recording data related to the navigated three-dimensional medical image model to a memory.

52. (new) The method of claim 51, wherein the recorded data comprises one or more images, audio, video, annotation data or any combination thereof.

53. (new) A system for navigating in real time in a three-dimensional medical image model, the system comprising a control unit for controlling the functions of the system, a pointing device operated with a worksurface and being connected to the control unit, and a display connected to the control unit, the control unit being configured to: display an orientation view of the medical image model on the display;

adjust a location on the displayed orientation view of the medical image model based on detected movement of the pointing device in relation to the worksurface for selecting a navigation point;

rotate the displayed orientation view on the display as the location on the orientation view is adjusted based on the detected movement of the pointing device in relation to the worksurface;

lock the current location on the orientation view as the navigation point based on detected control command from the pointing device;

display an inside view related to the navigation point into the medical image model when the navigation point is locked; and

adjust viewing direction to the inside view of the medical image model based on detected changes in orientation of the pointing device in relation to the worksurface.

54. (new) The system of claim 53, wherein the orientation view is a surface view of the medical image model.

55. (new) The system of claim 54, wherein the pointing device comprises a pen, a stylus or a pen-like instrument and the worksurface is a tablet surface.

56. (new) The system of claim 55, wherein the control unit is configured to adjust the viewing direction to the inside view of the medical image model based on a detected changes in

orientation between the pen and the tablet surface, the orientation being a tilt angle and direction between the pen and the tablet surface.

57. (new) The system of claim 55, wherein the control unit is configured to detect the movement of the pointing device in relation to the worksurface on the basis of changes of the pen tip position on the tablet surface.

58. (new) The system of claim 55, wherein the control unit is configured to detect the movement of the pointing device in relation to the worksurface on the basis of changes of the pen tilt angle in relation to the tablet surface.

59. (new) The system of claim 55, wherein the control unit is configured to proceed the inside view of the medical image model deeper into the medical image model depending on the pressure between the pen and the tablet surface.

60. (new) The system of claim 53, wherein the pointing device comprises an adjusting device and the control unit is configured to adjust different parameters of the medical image model by the adjustment device.

61. (new) The system of claim 60, wherein the control unit is configured to adjust the parameters independently of the orientation of the pointing device by the adjustment device.

62. (new) The system of claim 60, wherein the parameters that are adjusted by the adjustment device are used for proceeding the inside view deeper into the medical image model

or for adjusting transparency, contrast and/or threshold of the medical image model.

63. (new) The system of claim 53, wherein the inside view of the medical image model comprises one or more medical image slices or other reconstructions and the control unit is configured to adjust the viewing direction to the inside view of the medical image model by rendering of the medical image slices with respect to the orientation view of the medical image model.

64. (new) The system of claim 63, wherein the control unit is configured to orient the rendered medical image slices or other reconstructions in relation to the detected orientation of the pointing device.

65. (new) The system of claim 63, wherein the rendered medical image slices are three orthogonal planes, one of the planes being perpendicular with the axis oriented in relation to the detected orientation of the pointing device.

66. (new) The system of claim 53, wherein the control unit is configured to adjust the location by rotating a viewpoint to the orientation view of the medical image model on the display.

67. (new) The system of claim 53, the system further comprising a memory and wherein the control unit is configured to record data related to the navigated three-dimensional medical image model to the memory.

68. (new) The system of claim 67, wherein the recorded data comprises one or more images, audio, video, annotation data or any combination thereof.